Donations to the Library from the Indian Survey; Royal Society at Tasmania; Imperial Academy at St. Petersburg; Imperial Society at Moscow; Imperial Geological Institute at Vienna; German Geological Society, Berlin; Royal Academy, Brussels; Statistical Bureau, Stockholm; Antiquarian Society, Copenhagen; Royal Academy and Observatory at Turin; Accademia dei Lincei, and Geological Committee at Rome; International Geological Congress at Bologna; Geographical Society, Annales des Mines and Revue Politique at Paris; Geographical Society, Bordeaux; Revista Euskara; Nautical Almanac, Barcelona; Scientific Expedition, Lisbon; Royal Institution, Victoria Institute, Royal Astronomical Society, Royal Geographical Society, Meteorological Society, Geological Society, Royal Asiatic Society, and London Nature; John B. Lawes, of Herts, England; W. J. O'n Daunt, of Dublin; Museum of Comparative Zoölogy, Cambridge; American Journal of Science; New York Observatory; C. A. Barratoni, Ed. of Travel, N. Y.; Franklin Institute, Academy of Natural Science, American Journal of Pharmacy, and Prof. E. D. Cope; the Wyoming Historical and Geographical Society; American Chemical Journal and Journal of Mathematics; National Academy of Sciences; Polytechnic Society of Kentucky, Louisville; State Library of Natural History, Illinois; American and Oriental Journal; and Museo Nacional.

And the meeting was adjourned.

Stated Meeting, September 21, 1883.

Present, 3 members.

President, Mr. FRALEY, in the Chair.

A letter was received from Mr. J. B. Lawes, dated Rothumstead, Herts, England, July 31, 1883.

Letters of acknowledgment were received from the Astronomico Observatorio Nazional de Faenbaya, Mexico (113);

Prof. J. J. Stevenson (113); and the Cambridge University (109).

Letters of envoy were received from the Prussian Academy, Swiss Society, Belgian Statistical Bureau, Musée Guimet, Institut d'Ethnographie, Greenwich Observatory, and United States Coast Survey.

A letter requesting information was received from the United States Signal Service Bureau.

A letter requesting the completion of their set of Transactions of the American Philosophical Society was received from the London Statistical Society. So ordered.

A letter proposing full exchanges from the beginning was received from the United States Geological Survey, Washington, D. C. So ordered.

Donations for the Library were received from the Prussian, Bavarian, Belgian, Turin, Modena and Madrid Academies; from the Institutes at Venice and Philadelphia; from the Adelaide, Greenwich, Radcliffe, Yale and New York Observatories; from the Statistical Bureaus at Stockholm and Brussels; from the Societies at Hanover, Glarus, Leipsig, Görlitz, Lausanne, Leeds and Boston; from the Historical Societies at New York and Newark; from the Geological Societies at Vienna, London, Glasgow and Dublin; from the Geographical Societies at Paris, Bordeaux and London; from the Zoölogical Societies at Paris and London; from the Antiquarian Societies at Paris, London and Worcester; the Ethnographical and Anthropological Societies at Paris, the Society of Americanists, Ecole Politechnique, Bureau des Longitudes, M. Loewy, and the Revue Politique; the Musée Guimet; Revista Euskara; Expedition Serra Estrella; Office of Mines, Victoria; London Nature; Canadian Naturalist; American Journal of Science; American Journal of Pharmacy; Pennsylvania Magazine of History and Biography, the Engineers' Club, Dr. Hugh Hamilton, Dr. Charles W. Dulles, and Mr. Henry Phillips, Jr., of Philadelphia; Johns Hopkins University and the University of Virginia; the United States Naval Institute; the Smithsonian Institution, United States Board of Engineers, Signal

Service, Coast Survey, National Museum and Fish Commission; C. O. Thompson, of Terre Haute; Dr. Ladislaus Netto, George Basil Digwell, and the State Geological Survey of Illinois.

The death of John C. Trautwine, at Philadelphia, September 14, 1883, aged 74, was announced by the Secretary.

The following communications were read:

From Prof. E. W. Claypole, New Bloomfield, Perry county, Pennsylvania:

1. On a large *Crustacean* from the Catskill rocks of Meshoppen, Wyoming county, Pa., in the collection of Mr. Lacoe, of Pittston, Pa., with a small photograph of the head; a plaster cast of which was exhibited.

2. On the genus *Rensselaeria* in the Hamilton group, in Perry county, Pa.

3. On the equivalent of the New York *Portage*, in Perry county, Pa.

From Prof. E. D. Cope, a letter to the Secretary, dated Sully Springs, Dakota, Sept. 7, 1883, was read, as follows:

"I have the pleasure to announce to you that I have within the past week discovered the locality of a new lake of the White River epoch, at a point in this Territory nearly 200 miles north-west of the nearest boundary of the deposit of this age hitherto known. The beds, which are unmistakably of the White River formation, consist of greenish sandstone, and sand-beds, of a combined thickness of about 100 feet. These rest on white calcareous clay, rocks and marls, of a total thickness of 100 feet. These probably also belong to the White River epoch, but contain no fossils. Below this deposit is a third bed of drab clay, which swells and cracks on exposure to weather, which rests on a thick bed of white and gray sand, more or less mixed with gravel. This bed, with the overlying clay, probably belongs to the Laramie period, as the beds lower in the series certainly do.

"The deposit as observed, does not extend over ten miles in north and south diameter. The east and west extent was not determined.

"The fossils, which indicate clearly the age of the formation, are the following:

PISCES.

Rhineastes, sp. nov. *Aminurus*, sp. nov.	2

LACERTILIA.

Sp. indet.	1

TESTUDINATA.

Trionyx, sp.	3
Trionyx, sp.	
Stylemys, sp.	

RODENTIA.

Castor, sp.	1

CARNIVORA.

Galecynus gregarius	3
Hoplophoneus, sp.	
? Hoplophoneus, sp.	

PERISSODACTYLA.

Aceratherium, sp.	3
Aceratherium, sp.	
Anchitherium, sp.	

ARTIODACTYLA.

Elotherium ramosum	7
Hyopotamus, sp.	
Oreodon, sp.	
Oreodon, sp.	
Oreodon, sp.	
Leptomeryx, sp.	
Hypertragulus, sp.	
Total species	20

"Interesting features of the above catalogue are : The absence of Hyracodon and Poëbrotherium, so abundant in the beds of this age elsewhere ; the presence of fishes, not hitherto detected in them ; and the presence of the genus of tortoises, *Trionyx*. The latter genus has not hitherto been found in our Western lacustrine beds of later than Eocene age ; while they are abundant in our modern rivers. This discovery partially bridges the interval. The same is true of the fishes mentioned, which represent the order Nematognathi."

From Mr. Joseph Lesley, a letter to the Secretary, dated Princeton, Mass., August 22, was read, and specimens of seeds exhibited which had germinated between blocks of ice in the ice-house attached to the hotel of Mr. Edwin Grimes.

"In 1882 Mr. Grimes noticed that seeds, which had been dropped in packing the ice, had thrown out stems and roots. In the winter of 1882–'83, he experimentally scattered seeds of rye, barley and wheat be-

tween the cakes. To-day (Aug. 22) I was called to look at some of the results, and I send you a rough drawing of one of the germinated rye seeds. You will notice that the roots pushed out laterally between two blocks of ice; the shoot, or stem, did the same for half an inch, but then turned upwards at a right-angle and penetrated the solid ice vertically for a distance of two inches.

"No matter how the seed lay, whether with its germinating point up, down or sideways, the growth was always in the true vertical through the solid ice.

"I have seen, in 1882 and 1883, at least fifty similar cases occurring in this ice-house."

Pending nominations, Nos. 985 to 1004, and new nominations, Nos. 1005, 1006, were read.

The President reported that he had received, and paid over to the Treasurer, $132.75, being the interest on the Michaux rentes, last due.

And the meeting was adjourned.

The Perry County Fault. Note on an important Correction in the Geological Map of Pennsylvania. By E. W. Claypole.

(*Read before the American Philosophical Society, April 20, 1883.*)

THE DISTRICT IMMEDIATELY SOUTH OF NEW BLOOMFIELD.

The country lying immediately south of Mahanoy ridge, is one of the best collecting grounds that I have found in the county for the fossils of the Hamilton and Chemung groups. The Upper Hamilton shales are there exposed better than I have found them elsewhere, and the Chemung, especially the lower part of the group, may also be examined in many small wayside cuts and field-exposures.

But very soon after beginning to work this field I became aware that some difficulty hitherto unrecognized stood in the way of deciding the horizon from which the fossils came. It was impossible to recognize the different rocks according to the views expressed in the preliminary map of Perry county. References to this geological map of the county will show that the ground between Mahanoy ridge and Dick's hill is there represented as a close syncline bounded by outcropping edges of Hamilton sandstone, the middle of which is occupied by a sheet of Chemung rocks. But a very short examination sufficed to show that the Hamilton Upper shales extended much farther out into the valley from Mahanoy ridge